Office of Marine and Aviation Operations

SAFETY NEWS

From the Safety and Environmental Compliance Division

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Message from Mr. Kevin Ivey, Director, SECD

In this issue, we introduce a new section in the newsletter titled Program News that provides the latest information from SECD program areas. This month's Program News features information from the NOAA Diving Safety Program and the Fleet Inspection Program. The Policy Spotlight section covers information on confined space entry. Following the policy spotlight are updated accident statistics, and a review of recent accidents and lessons learned. In the News and Notes section, we cover a wide range of topics including electrical safety, safety training, and fatigue. We hope that the information shared in this newsletter will contribute, in part, to improved safety performance. Please feel free to share your thoughts and suggestions.

Stay safe…

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PROGRAM NEWS

NOAA Diving Safety Program Survival Guide – from Steve Urick

Introduction: Changes are constantly taking places within the NOAA Diving Safety Program (NDSP) and the NOAA diving community and this newsletter is a great opportunity for me to share those changes with you and also for you to submit questions, communicate information and share lessons learned in the field. These articles are intended for NOAA Divers although

the information may be relevant to non-divers. If you have questions or corrections to the articles please bring them to my attention at steve.urick@noaa.gov. So let's get started.

Update 1 - As you may know AEDs are powered by two batteries. One is a Lithium ion battery 'Pack' and the other a simple 9v battery. These batteries can be removed from the AED by pressing on the orange button on the side of the AED. To check the expiration date on the pack search the pack for the date - it will be listed for example: 2016/12 or year/month, the 9v is connected to the pack and easily removed for service. If either battery is expired the AED will give off a warning 'Chirping' sound and the green power up button will flash red when activated (per Defib Tech). Check your units for expiration dates and as always (divers only) contact Lisa of the Standardized Equipment Program and she will replace expired parts.

Please be aware that the AED pads issued with your NDP AED unit have an expiration date of every two years. During DUSA inspections on some units we have found AEDs with expired pads making them unauthorized for use until these pads are replaced. Please take the time to inspect your AED pads for an expiration date and if needed have them replaced. The pads are available now at no charge through the Standardized Equipment Program (divers only) by contacting Lisa Glover at 206-526-6446 or email. Please take the time to inspect your pads. The necessary inspection shouldn't take more than five minutes.

Update 2 – Low and High Pressure flasks other than (scuba and K-cylinders) are to be inspected in accordance with OSHA which references to Association of Diving Contractors International (ADCI). ADCI requirements boils down to each cylinder or flask shall be internally/externally inspected on an annual basis and either hydrostatically or Non-destructive tested every 5 years. There are additional requirements listed on the DUSA Checklist found on the NDP website under the Forms section. If during a DUSA inspection these cylinders are out of date the cylinder will be unauthorized for use until maintenance is performed.

Update 3 – I have also created a BLOG for interaction between you and the NDSP. The blog became available in February and will eventually be linked to the NDP webpage. All divers should have received an 'all divers' email with the blog site address. I believe this will be the appropriate forum for you to remain informed of the DUSA progress, updates and to ask and answer questions.

Fleet Inspection Corner

Lockout Tagout can save your life

Nothing is so urgent that you should risk your life. Don't take a shortcut thinking a tagout is too much bother for a quick job. Tagout procedures were established to keep you safe – PLEASE FOLLOW THEM! If you are not sure about tagout procedures, please review OMAO Procedure 1701-05, your vessel's Ship Specific Instruction (SSI), or contact the ship's Chief Engineer.

The four main causes of electric shock onboard ships are:

1. Not paying attention
2. Ignoring procedures
3. Getting complacent around energized equipment

4. Inadequate tagout

If you break a light bulb while it is still in its socket, de-energize and tagout the circuit at the lighting power distribution panel before removing the light bulb. This is essential since the local switch controlling the fixture may open one side of the line while the other side remains energized at the fixture.

When working around a battery be vigilant and ensure tools in close proximity do not bridge the battery terminals! Use only tools with insulated handles.

Latest USCG Marine Safety Alert focuses on the need to stay alert on deck!

A recent marine casualty resulting in the death of a crew member highlights the need to remain ever vigilant to unsafe practices and conditions. In this instance, the crew member was standing in a hazardous location on the vessel's working deck, near the stern between a section of interior bulwark and a large-diameter trawl wire which was supporting the weight of at least 1,400 pounds of deployed fishing gear. As the load on the wire increased and the direction of the load path shifted due to the sea state and the vessel's motion, the wire suddenly became taught against the vessel's bulwark where the crew member had been standing. As a result, the crew member was trapped in between and suffered fatal injuries. Although the investigation of this casualty is not complete and other causal factors may be discovered, initial findings indicate that failure to follow shipboard safety procedures and failure to recognize a dangerous situation may have contributed to this casualty.

The Coast Guard **strongly recommends** that owners, operators, and crew members of commercial fishing vessels implement the following, common-sense safety measures:

• Develop and post safety plans that include identification of "pinch points" and other dangerous locations on deck;

• Regularly conduct onboard safety training emphasizing on-deck hazards and other potential dangers;

• Remain ever-vigilant to the changing nature of potential dangers in the presence of moving deck machinery, rigging, and equipment;

• Follow your Ship Specific Instructions (SSIs) and avoid placing oneself in peril!

POLICY SPOTLIGHT

Procedure 1701-10, Confined Space Entry Program, was signed by Admiral Score and issued on December 24, 2013. The Fleet Standardization Office researched and developed the procedure turning a very complex, often confusing, set of regulations intended to control access to confined and hazardous spaces into a readable and implementable set of requirements. Some of the highlights and issues addressed as part of the program are captured below.

All confined spaces must be considered to have a hazardous atmosphere until demonstrated to be safe via testing by the Competent Person. Confined spaces may contain high concentrations of harmful gases and other environmental conditions that can cause injury, illness, or death.

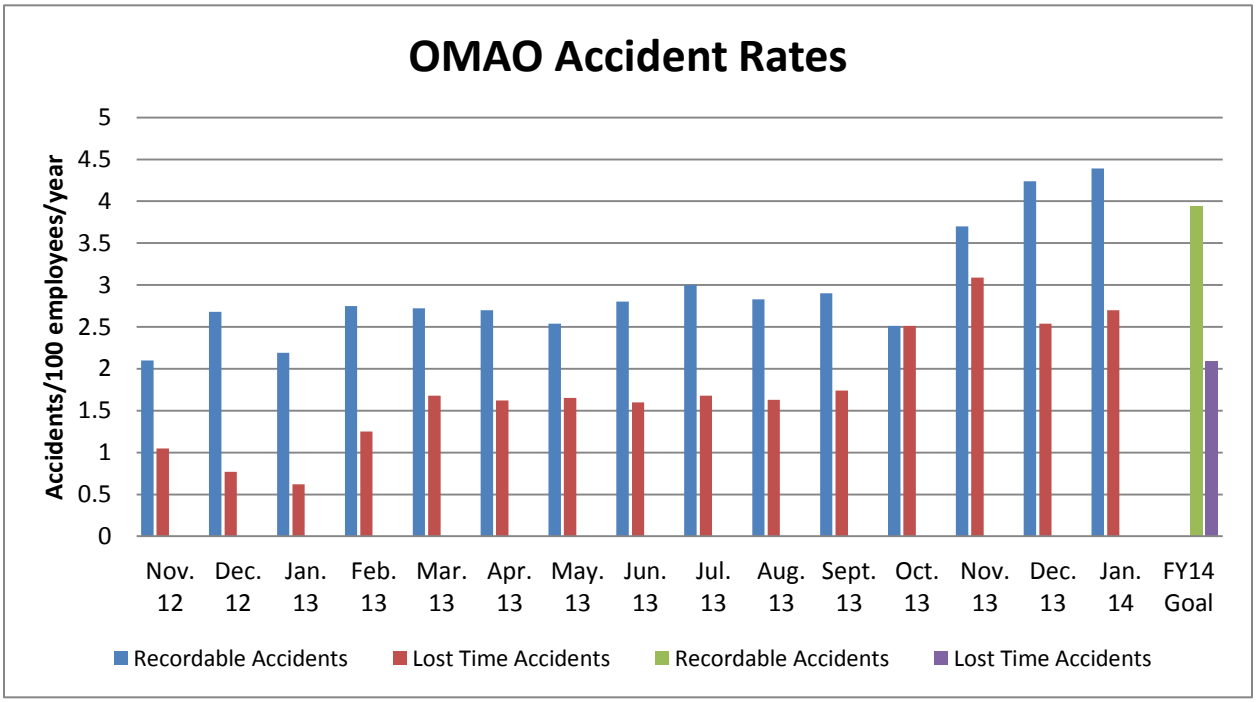
Conditions inside a confined space can change. Confined spaces (non permit) may become Permit Required Confined Spaces due to workers' activities such as painting or changes in atmospheric conditions. DO NOT assume that a space that is not permit-required will always be classified as such.

Marine Operations (MO) employees are not authorized to conduct Hot Work within confined spaces without a Marine Chemist certifying the space as "Safe for Hotwork." The exception to this restriction is for circumstances where delaying entry or repairs would create a severe risk to the ship, crew, or environment.

Ships are reminded that a Confined Space Program file is required to serve as the Ship Specific Instruction (SSI) per guidance provided in the Procedure to meet requirements for establishing a confined space inventory, documenting rescue plans and drills, training, confined space equipment, and use of "safe-for-workers" checklists and entry permits.

ACCIDENT STATISTICS

Accident rates over the past 15 months and a corresponding bar graph are shown below. Accident rates are considerably higher compared to what they were a year ago. We are currently above our goals for the year. We continue to see a significant number of contact-with incidents that lead to injury as well as slip, trip, and fall accidents. The number of injuries associated with exertion has also increased. Please make a concerted effort to pay attention to details, like body positioning for example, required to work safely. At the end of the day, it's not just about the numbers. No one wants to be injured. We want everyone to leave work in the same condition as they arrived.



OMAO Annual Accident Rates*

	Jan. 2013	Jan. 2014	FY14 Goal
Recordable Accident Rate	2.19	4.24 ↑	3.94
Lost Time Accident Rate	0.62	2.54 ↑	2.09

*Accident rates are calculated based on the total number of recordable and lost time accidents that occur in the workplace compared to the total number of hours worked by all employees at that workplace. The accident rate represents the number of accidents that have occurred per 100 employees for the year.

RECENT INCIDENTS: CAUSES AND LESSONS LEARNED

This section provides a description of recent incidents that have occurred in OMAO. In many cases, more thorough follow-up investigations have been conducted and more comprehensive lessons learned have been disseminated to targeted audiences within OMAO. The information below is intended to remind us of the importance of staying safe.

Description: An engineer aboard a NOAA ship sustained an abdominal strain while pulling shore power cables from the ship onto the pier resulting in a lost time injury. The ship reported that the ship's crane does not	**Description**: While cleaning parts using a wire wheel, a crewmember aboard a NOAA ship placed their hand on the opposite wheel of a bench grinder causing abrasions and minor lacerations. The grinder has one motor

reach in front of the gangway to assist with the hooking-up of shore power. The engineers have to drag the cords from the stern of the vessel under the gangway to the shore power connection (the cords are 25lbs per foot). The ship does not have electrical deck boxes and pigtails to tie into the shore power box. **Causal Factors**: Causal factors cited by the ship included improper positioning used while lifting and dragging the power cables from the ship to the pier. It was noted that the cord was frozen and stiff which required significant exertion to pull it into place. In addition, the work was done at the end of a 14-hour day in driving snow and 30 mph winds. Weather and fatigue were cited as contributing factors in this incident. **Lessons Learned**: The ship has proposed an engineering solution as corrective action to prevent re-occurrence of this incident. Installation of an electrical box arrangement similar to what is aboard other NOAA ships would eliminate the need for the crew to manhandle the main shore power cable on and off the ship thereby eliminating future injury to personnel. Corrective actions should always first consider elimination of the hazard. Consideration should then be given to any or all of the following in the order listed: engineering solutions; procedural changes including additional training; and lastly use of personal protective equipment.	that drives a wire wheel on one side and a grinding wheel on the other side. Both wheels rotate when the motor is on. The grinder has a machine guard in place primarily for eye protection. When the guard is in place, the wheel under the guard is still exposed. **Causal Factors**: Primary causal factor cited by the ship was lack of situational awareness which resulted in placing the hand on a moving grinding wheel. **Lessons Learned**: The ship is looking into whether or not an additional machine guard, in essence two covers, could be installed on the grinder which could be put in place to protect injuries from occurring from the side that is not in use. In addition, the employee was counseled regarding situational awareness when operating on or near moving equipment and power tools. Please consider when lack of situational awareness is cited as a primary causal factor, employees should be re-trained in the aspects of the job that was being done when the accident occurred. For example, consider requiring employees to view a safety video that addresses situational awareness or proper procedures for doing a given task, and document that the training was provided.

Description: While working from a four-foot ladder, a member of the engineering department aboard a NOAA ship, reached for equipment needed for the job, lost balance and fell from the third step of the ladder resulting in potential injuries that required medical examination. **Causal Factors**: The ship cited as causal factors 1) positioning/loading: over reaching from ladder put center of balance outside of ladder rails, and 2) equipment/training: ladders need to be securely placed and	**Description**: A crewmember coming aboard a NOAA ship fell while stepping off the gangway onto the deck of the ship resulting in an injury that required medical attention. **Causal Factors**: The gangway had shifted causing the step-down block to move completely under the gangway resulting in a 2 1/2 foot drop from the gangway to the deck of the ship. The ship's mooring lines had slack in them which allowed the ship to surge away from pier when passing vessels created a wake causing the brow to fall off the steps

braced to prevent kick out. **Lessons Learned**: Objects should not be reached for while working from a ladder. Most jobs require at least one person to be assigned to assist, watch, warn and correct unsafe situations.	placed at each end of brow. **Lessons Learned**: Although it is everyone's responsibility to point out hazards like an unsafe or improperly rigged gangway, as the saying goes, if everyone is responsible, no one is responsible. Properly tend your mooring lines. Ensure duty personnel are making rounds and tending to assigned watch-duties. Routinely inspect the gangway, especially after mooring lines have been tightened or loosened due to changing tides or changes in ship loading.

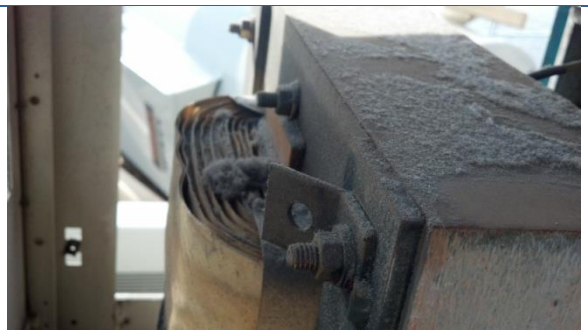
Lessons Learned Safety Bulletins are routinely issued to the fleet on an as needed basis and results of formal Accident Investigations are posted on the following web site: http://www.omao.noaa.gov/accident_investigations_lessons_learned/index.html

BEST PRACTICES

The best ideas for improving safety come from the field. Do you have an idea to help prevent injuries? Please send it to the SECD Chief (omao.secd@noaa.gov) or to MOC safety staff at Safeship.moc@noaa.gov and we will plan to share it throughout OMAO.

NEWS AND NOTES

Uninterruptible Power Supply (UPS) Safety Issues – A near miss incident recently occurred aboard a NOAA ship involving failure of UPS battery packs which could have lead to a fire. Upon investigation, it appears the batteries failed on account of significant heat build-up, or the failure resulted in a build-up of heat, either of which could have caused a fire. The battery pack casings were bulged, distorted and breached. A build-up of dust was also discovered on the UPS air vents which may have contributed to heat build-up and failure of the batteries. Those responsible for UPS maintenance are advised to establish protocols for regular maintenance and cleaning of the UPS unit itself, along with inspection of the batteries and associated electrical connections.



Electrical Surge Protector Safety Issues – Ships are reminded to use only "shipboard authorized" surge arrestor power strips. Surge protectors should be labeled by the manufacturer to the effect, "Suitable for Shipboard Use." Also, please remember to use only shipboard authorized Uninterruptable Power Supplies (UPS) when choosing smaller style UPS's for use with client computers or stateroom use. The issue with using common household surge protectors and UPS's is that the household rated devices are designed to connect to a hot wire and a neutral wire to get the voltage potential required (typically 120 volts). Aboard ship, both wires in a ship's electrical system are hot, and a third wire serves as the independent neutral ground. As a result, use of land-based devices can lead to overload and fire, and a greater potential for electrical shock.

Airline Crash - Hearing Investigates Fatigue – The Feb. 20, 2014 one-day NTSB investigative hearing into the Aug. 14, 2013 crash of a United Parcel Service jet on approach to the Birmingham-Shuttlesworth (Alabama) Airport included evidence that the flight crew was fatigued, and that the captain had said the schedules were "killing him" and he "couldn't keep this up." According to the San Francisco Chronicle, documents and testimony indicated the crew made several errors on the night approach, including continuing to descend below the minimum descent altitude into a layer of clouds. The runway at the airport with vertical guidance on its instrument approach system was closed, so the flight was making a non-precision approach. The crew should have stopped descending at 500 feet above the ground and remained at that altitude until they could see the runway lights. The Airbus A300-600F hit a hill less than a mile from the runway threshold.

Attention is being paid to crew rest and fatigue in the accident investigation as the accident occurred six weeks after cargo airlines were exempted from new regulations regarding the hours pilots can fly, particularly at night. Congress was heavily lobbied on the issue by the airlines and pilot unions. The UPS pilots union, the Independent Pilots Association, has sued the FAA to extend the plot rest rules to include cargo airlines. Following the accident, UPS concluded that the pilots' schedules would have met the new FAA regulations for passenger airlines. The hearing also explored the issue of pilots meeting their responsibilities to get adequate rest while off duty. In the wake of the hearing, the Air Line Pilots Association again called for "one level of safety" for crew duty times for cargo and passenger airlines.

Shipboard Safety Training Videos - The who, what, where, when and why

Who: Available to all hands.

What: Safety videos covering a wide range of topics from general safety, to lock-out tag-out, to fall protection.

Where: All of the videos can be viewed aboard ship. An inventory of the videos that should be aboard was recently compiled by STEM and shared with the fleet.

When: In addition to other training identified by STEM as being required from other sources, the videos should be viewed periodically throughout the year to meet annual safety training requirements, refresher training, and as a follow-up to a specific accident or incident.

Why: The intent of the videos is to reduce accidents by raising awareness, educating regarding the proper way to perform a specific job or procedure, and to serve as a reminder that safety should be in the forefront at all times.

Please maintain current records of what videos are available, where they are located, and when they are shown.

Increased Number of Accidents tied to Time of the Year – Based on a review of accident rates over the past several years, OMAO typically experiences an increase in the number of accidents that coincide with the following times: at the start of the field season due to the introduction of new projects and procedures and a given degree of rustiness; at the height of the field season and whenever there is an increase in augmentation; and at the end of the field season possibly due to fatigue and a given level of complacency. Employees and supervisors are asked to raise safety awareness especially during those times. Activities to decrease risk include safety stand-downs; on-the-job training for new employees and augmenters; safety tabletops and tool-box talks; and ensuring adequate rest, down-time, and time off.

TERM OF THE MONTH

Please understand the following terms, especially when determining whether or not an accident/incident needs to be reported, and how the accident/incident should be classified.

Accident – The National Safety Council defines an accident as an undesired event that results in personal injury or property damage.
Incident – An incident is an unplanned, undesired event that adversely affects completion of a task.
Near miss – Near misses describe incidents where no property was damaged and no personal injury sustained, but where, given a slight shift in time or position, damage and/or injury easily could have occurred.

Classification of an accident will determine whether or not the accident is recordable from an OSHA record keeping perspective. Accidents are recordable if the injury sustained requires medical attention greater than first aid, results in lost time beyond the initial day of the injury, or results in restricted duty that causes reassignment of duties.

COMMON INTERESTS

Below is an article on distracted driving from the National Safety Council.

When Driving, Focus on the Road...

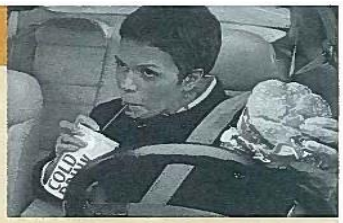
Electronic Devices

New technologies give you the freedom and flexibility to continue your daily activities no matter where you may be. However, on the road, a driver's first responsibility is the safe operation of the vehicle and the best practice is not to use any electronic devices while driving.

Whether driving on personal time or company business, people should not use cell phones (including hands free) or any other mobile electronic devices while operating a motor vehicle. This includes, but is not limited to, answering or making phone calls, engaging in phone conversations, reading or responding to e-mails and text messages, adjusting a Global Positioning System (GPS), and accessing the Internet.

These restrictions do not apply to calls made to report an emergency. In all such cases, all cautionary measures should be practiced. Furthermore, the National Safety Council recommends:

- Consider turning off, putting on silent or vibrate wireless phones or other devices before starting the vehicle.
- Pull over to a safe place and put the vehicle in "Park" if a call must be made or received while on the road.
- Consider modifying your voice mail greeting to indicate you are unavailable to answer calls or return messages while driving.
- Inform clients, associates and business partners of this policy as an explanation of why calls may not be returned immediately.
- Pull over to a safe place and put the vehicle in "Park" to make adjustments to a Global Positioning



Dashboard Dining

Our advice, don't do it.

There is no safe way to consume food or beverages while driving your car, just as there is no way to safely shave or apply makeup. A motorist can be ticketed for doing it. A professional driver could be fired. And, if you are then involved in an accident, it is considered a preventable/ chargeable collision and you are at fault for the incident.

Children and Pets

Children and pets are just as capable of serious distraction as electronic devices. We recommend:

- Always properly restrain children in the back seat, and gate or cage your pet in the rear of the vehicle.
- Bring something for everyone to do — a game for the kids, a rawhide bone for the dog.
- Keep the temperature in the car comfortable for everyone.
- Separate those who have trouble getting along.
- On long trips, allow for frequent rest stops so everyone stays refreshed and happy.
- Always reinforce the fact that driving is your first priority when at the wheel. Let someone else in the car be in charge of all requests and disputes.

For More Information
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Safety . . . our mission depends on it